



North Carolina Turnpike Authority

*Board of Directors
Finance Committee Meeting*

October 6, 2016



Today's Agenda

- Monroe Expressway
 - Cost to Complete Update
 - Draft Financing and Bond Documents
 - Traffic and Revenue Study Update
 - Engineering Report Update
 - Market Update & Marketing Strategy
- Triangle Expressway / Monroe Expressway
 - Investment Strategy Update



Monroe Expressway – Cost to Complete Update

Donna Keener, P.E.

HNTB



Project Status Update (as of August 31, 2016)

ITEM	Current Budget	Exp. Thru 8/31/16	% Complete
DESIGN-BUILD CONTRACT LESS CEI	\$ 453,085,644	\$ 251,721,729	56%
LANDSCAPING	\$ 5,909,217	\$ 18,960	0.3%
CEI BY SUMMIT	\$ 18,183,632	\$ 4,300,258	24%
UTILITIES	\$ 4,757,285	\$ 710,221	15%
DIESEL FUEL AND AC RESERVES	\$ 13,850,753	\$ (796,249)	-6%
RIGHT OF WAY	\$ 147,347,482	\$ 101,879,110	69%
TOLL INTEGRATION	\$ 23,449,840	\$ 636,301	2.7%
ADMINISTRATION & RESERVES	\$ 64,286,649	\$ 4,049,063	6%
TOTALS	\$ 730,870,501	\$ 362,519,395	50%



Items to be discussed in more detail.

Design-Build Construction Status

> 75% complete

Mobilization

Engineering / Design

Clearing and Grubbing

Water and Sewer

Culverts

> 50% complete

Project Management

Erosion Control

Earthwork

Drainage

Bridges

Abutment Walls / Noise Walls

Guardrail / Fencing

< 50% complete

Paving

Concrete Barrier

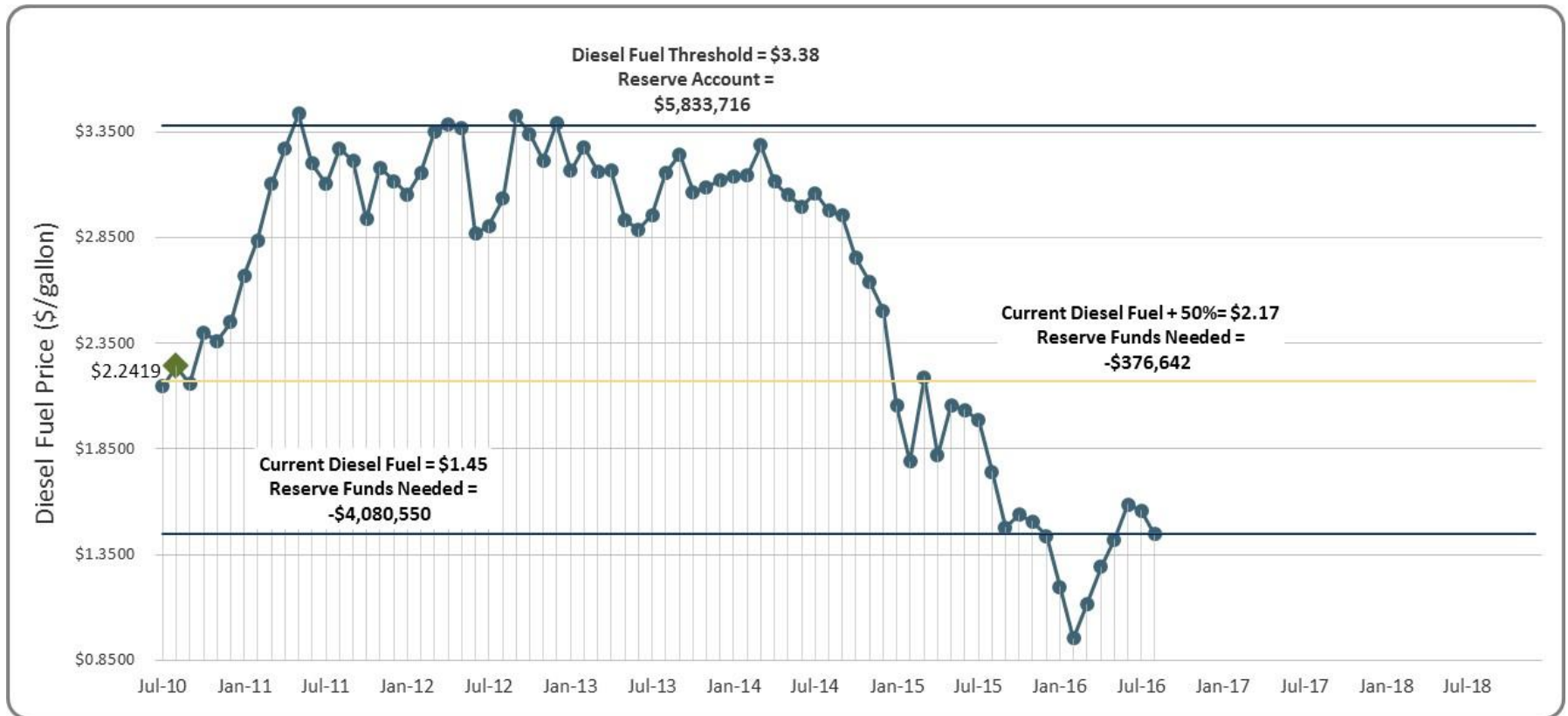
Pavement Marking

Seeding

ITS / Toll Infrastructure

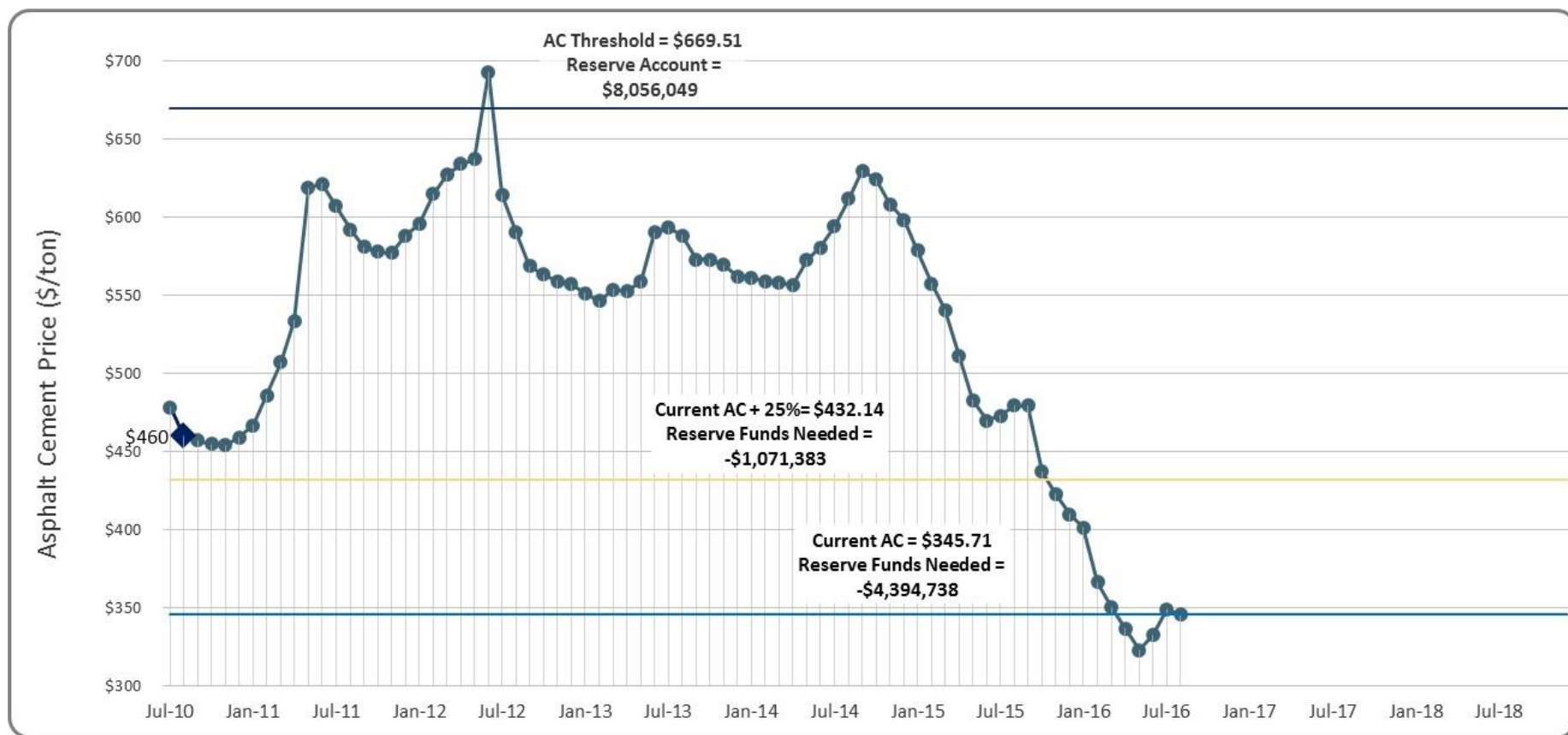
Signing

Diesel Fuel Reserve Account



- Reductions in Contractor Payments through 8/31/16:
 - \$623,432
- Fuel hedge in place to protect against rising prices (strike price = \$2.00)

Asphalt Cement Reserve Account



- Reductions in Contractor Payments through 8/31/16:
 - \$172,817

Right of Way Budget Update (as of September 23, 2016)

Project Element	Est. Cost (\$M)
Settlements to Date	\$ 46.31
Outstanding Parcels (estimate)	\$ 0.51
Condemnation Deposits	\$ 39.75
Condemnation Risk (1x deposit)	\$ 39.75
Agency Costs to Date	\$ 16.56
Additional Agency Costs (est.)	\$ 0.55
Total ROW Cost Estimate	\$ 143.42

- 361 parcels settled (average of 16.5% above appraised value)
 - Includes 14 parcels formerly in condemnation (settled for average of 36% above appraised value)
- 109 parcels condemned
 - Built-in contingency of 100% above appraised value
- 1 parcel in negotiations

Administration Costs and Reserve Funds

(as of August 31, 2016)

ITEM	Current Budget	Exp. Thru 8/31/16	Remaining
INCENTIVES	\$ 3,000,000	\$ -	\$ 3,000,000
STIPENDS	\$ 500,000	\$ 500,000	\$ -
NCTA CONSULTANTS	\$ 532,492	\$ 374,348	\$ 158,144
NCDOT LABOR & CONSTR. MGMT.	\$ 16,007,390	\$ 1,257,727	\$ 14,749,662
DOT ADMIN/TRANSFER SURCHARGE	\$ 2,362,640	\$ 1,807,975	\$ 554,664
EDUCATION & OUTREACH	\$ 3,433,693	\$ -	\$ 3,433,693
CHANGE ORDER CONTINGENCY*	\$ 26,565,727	\$ 3,960,751	\$ 22,604,976
MISCELLANEOUS PROJECT COSTS	\$ 15,845,459	\$ 109,013	\$ 15,736,446
TOTALS	\$ 68,247,400	\$ 8,009,815	\$ 60,237,586

*3.96M in change orders have been transferred to construction budget.

Monroe Expressway – Draft Financing and Bond Documents

Wally McBride

Hunton & Williams

Mary Nash Rusher

McGuireWoods



Monroe Expressway – Revenue Bond Trust Agreement

Main Purposes and Concepts:

- Continuation of lien on toll and other revenues from 2011 as security for various debt
- Sets forth the terms for the 2016 Revenue Bonds
- Creates Project Fund to hold proceeds until requisitioned to pay costs
- Creates a Revenue Fund to collect all revenues and a “waterfall” of funds and priorities for the use of such revenues
- Includes covenants for NCTA as to operations, financial goals, etc.
- Has provisions on what happens if there are less revenues than expected
- Contains miscellaneous provisions for supplements, defeasance, notices, etc.
- Contains TIFIA loan references



Monroe Expressway – Preliminary Official Statement

Main Purposes and Concepts:

- Describes key terms of Bonds
- Describes the Monroe Expressway (Location, Design, Construction, Operation, Tolling, including status of construction, selection of RTCS and ETC contractors, description of Design-Build team)
- Includes Plan of Finance – describes financing sources (State Appropriation Bonds, Series 2016A Bonds, STIP funds) and uses
- Describes Revenues and flow of Revenues into Funds
- Describes Revenue Pledge and Rate Covenants
- Describes NCDOT Commitments on costs of construction, operation and maintenance guaranties
- Includes Traffic and Revenue Report and GEC's Engineering Report attached in full
- Includes detailed list of risk factors
- Describes Authority's continuing disclosure undertaking



Monroe Expressway – Bond Purchase Agreement

- Executed after the Bonds are priced
- Commits the Underwriters to purchasing the Bonds
- Sets forth final terms of Bonds, including maturities, sinking fund redemptions, interest rates, yield
- Sets forth the conditions to closing, including
 - execution of TIFIA Loan
 - receipt of ratings
 - consent of Design-Build Contractor, HNTB Corporation (GEC Report), CDM Smith (Traffic and Revenue Report) to inclusion of their information in the POS and OS
 - Opinions of bond counsel, attorney general for NCDOT, underwriters' counsel, trustee's counsel



Monroe Expressway – Traffic and Revenue Study Update

Leslie Johnson

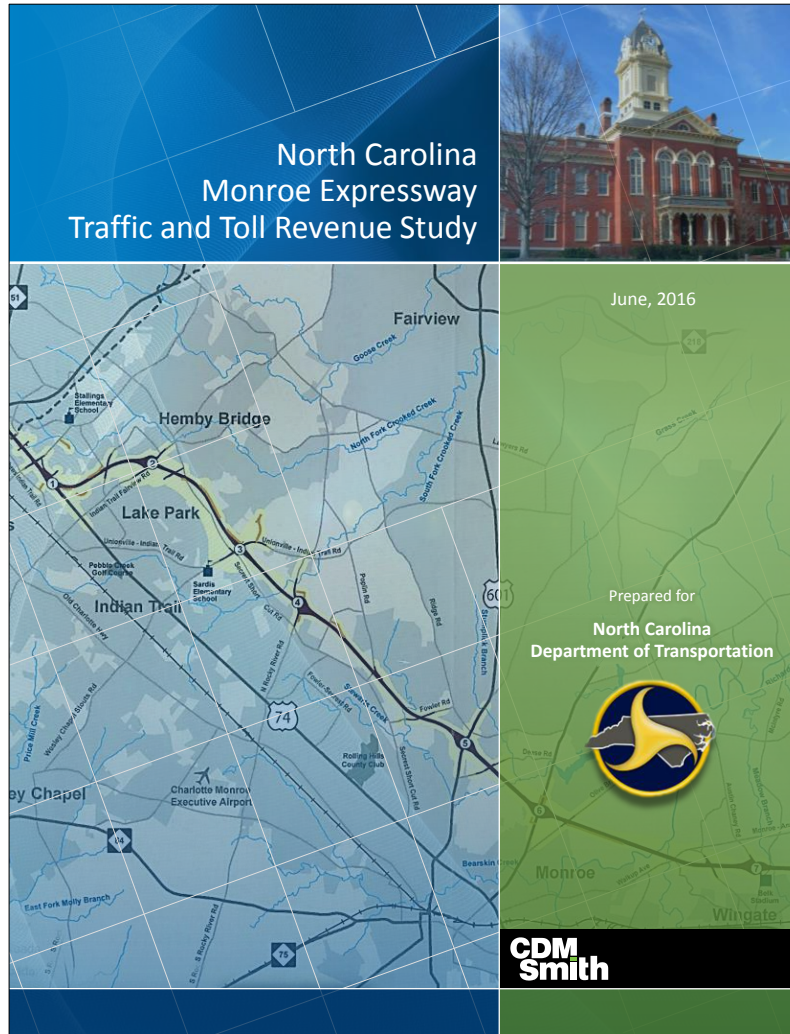
CDM Smith



195 Church Street, Suite 7A
New Haven, CT 06510-2191
203.865.2191
cdmsmith.com



Status Update of Monroe Expressway Traffic and Revenue Study



- No changes have been made to the June 3, 2016 Draft T&R Study
- The Base Condition traffic and revenue estimates from the Study will be included in the Preliminary Official Statement and the Official Statement
- Responses have been supplied to all TIFA requests, including clarifications and traffic and revenue sensitivity tests



Continuing Work Efforts

- A final document review of the Draft Traffic and Revenue Study for any typographical errors
- Issue the Final Traffic and Revenue Study
- Finalize all Technical Memoranda and Steven Appold's Economic Report
- Participate in Finance Team meetings and review documents prepared by the Finance Team



Monroe Expressway – Engineering Report Update

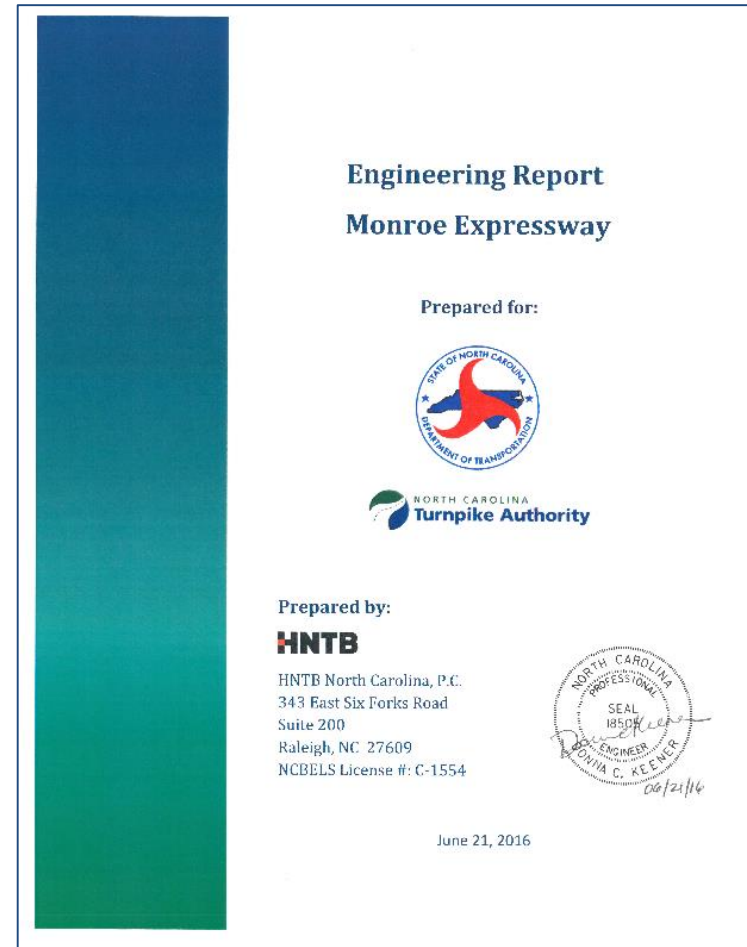
Donna Keener, P.E.

HNTB



Engineering Report Update

- Prepared in June 2016
- Will be included in Official Statement
- Final version will include:
 - Responses to TIFIA Due Diligence questions
 - Cost data through FY 2016



Monroe Expressway – Market Update & Marketing Strategy

Jim Calpin

BAML



North Carolina Turnpike Authority

Discussion Materials

October 6, 2016



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Current Transaction

Review of Underwriting Syndicate and Structure

Current Structure

PRELIMINARY OFFICIAL STATEMENT DATED NOVEMBER __, 2016

NEW ISSUE – BOOK ENTRY ONLY **Rating: See “RATINGS” herein.**

This Official Statement has been prepared by the North Carolina Turnpike Authority to provide information on the Series 2016 Bonds. Selected information is presented on this cover page for the convenience of the user. To make an informed decision regarding the Series 2016 Bonds, a prospective investor should read this Official Statement in its entirety. Unless otherwise indicated, capitalized terms used on this cover page have the meanings given in the Official Statement.

\$
NORTH CAROLINA TURNPIKE AUTHORITY
Monroe Expressway Toll Revenue Bonds, Series 2016
consisting of

[NCDOT Logo] [NCTA Logo]

\$
Monroe Expressway Toll Revenue Bonds, Series 2016A

\$
Monroe Expressway Toll Revenue Bonds, Series 2016B (Convertible CAB Bonds)

\$
Monroe Expressway Toll Revenue Bonds, Series 2016C (Capital Appreciation Bonds)

Dated: Date of Delivery **Date:** as shown on inside front cover

Tax Treatment: In the opinion of Bond Counsel, under current law and subject to conditions described in the Section herein “TAX TREATMENT,” interest on the Series 2016 Bonds (a) is not included in gross income for federal income tax purposes, (b) is not an item of tax preference for purposes of the federal alternative minimum income tax imposed on individuals and corporations, and (c) is exempt from all income taxes in the State of North Carolina. Such interest may be included in the calculation of a corporation’s alternative minimum income tax and a holder may be subject to other federal tax consequences as described in the Section herein “TAX TREATMENT.”

Redemption: The Series 2016A Bonds are subject to optional redemption on or after July 1, 20___. The Series 2016A Term Bonds are subject to mandatory sinking fund redemption as described herein. The Series 2016B Bonds are subject to optional redemption on or after July 1, 20___. The Series 2016C Bonds are subject to optional redemption on or after July 1, 20___. See “THE SERIES 2016 BONDS – Redemption Provisions.”

Security: The Series 2016 Bonds will be special obligations of the Authority, secured by and payable from the Revenues (hereinafter defined) of the Monroe Expressway System described in this Official Statement and, under certain circumstances, the proceeds of the Series 2016 Bonds, investment earnings and certain other proceeds. Neither the credit nor the taxing power of the State of North Carolina (the “State”) or any of the State’s political subdivisions is pledged for the payment of principal of, premium, if any, or interest on the Series 2016 Bonds, and no Owner of the Series 2016 Bonds has the right to compel the exercise of the taxing power of the State or any of the State’s political subdivisions or the performance of any of their respective properties other than Revenues in connection with any default on the Series 2016 Bonds. ACCELERATION IS NOT A REMEDY AVAILABLE TO OWNERS OF THE SERIES 2016 BONDS UPON DEFAULT.

Interest Payment Dates: Interest on the Series 2016A Bonds will be paid on January 1 and July 1, commencing __/1/2017. Interest on the Series 2016B Bonds will not be paid currently prior to their Convertible CAB Bond Conversion Date, but interest accrued on the Series 2016B Bonds to such date will be paid on the maturity thereof. Following the Convertible CAB Bond Conversion Date, interest on the Series 2016B Bonds will be paid on January 1 and July 1 of each year. Interest on the Series 2016C Bonds will not be paid currently, but will be paid upon the maturity thereof. See “THE SERIES 2016 BONDS – Interest Rate Provisions of Series 2016 Bonds.”

Denominations: \$5,000 or any whole multiple thereof.

Closing/Settlement: December __, 2016.

Bond Counsel: Hunton & Williams LLP

Underwriters’ Counsel: McGuire Woods LLP, Raleigh, North Carolina

Trustee and Bond Registrar: Wells Fargo Bank, N.A., Jacksonville, Florida

The Series 2016 Bonds are offered, when, as if issued and received by the Underwriter, subject to prior sale and the opinion of Bond Counsel as to the validity, the tax treatment of interest on the Series 2016 Bonds and certain other matters.

BofA Merrill Lynch
J.P. Morgan Securities **Wells Fargo Securities**

Citigroup

The date of this Official Statement is December __, 2016.

Preliminary, subject to change.

\$109,605,000 Current Interest Bonds		
Fiscal Year (6/30)	Principal	Yield
2044	\$6,445,000	4.01%
2045	7,110,000	4.02%
2046	7,800,000	4.03%
2047	8,515,000	4.18%
2048	9,270,000	4.18%
2049	10,085,000	4.18%
2050	10,925,000	4.18%
2051	11,475,000	4.18%
2052	12,050,000	4.33%
2053	12,650,000	4.33%
2054	13,280,000	4.33%
Total	\$109,605,000	

\$39,370,000 Convertible CABs Conversion Date: July 1, 2027		
Fiscal Year (6/30)	Principal at Conversion	Yield
2028	\$65,000	4.83%
2029	305,000	4.85%
2030	510,000	4.91%
2031	725,000	4.97%
2032	1,000,000	5.02%
2033	1,295,000	5.07%
2034	1,615,000	5.12%
2035	1,975,000	5.17%
2036	2,345,000	5.21%
2037	2,750,000	5.28%
2038	3,205,000	5.30%
2039	3,660,000	5.31%
2040	4,160,000	5.32%
2041	4,700,000	5.33%
2042	5,235,000	5.34%
2043	5,825,000	5.35%
Total	\$39,370,000	

Syndicate Members

- Bank of America Merrill Lynch (Senior Manager)
- Citigroup (Co-Manager)
- J.P. Morgan (Co-Manager)
- Wells Fargo (Co-Manager)

Municipal Market Update

Current Market Environment

Commentary⁽¹⁾

- Domestic data remains mixed:
 - GDP and consumption data releases point to a U.S. economy that continues to expand at a slow pace.
 - Counterparty risk in Deutsche Bank dominated trading headlines late in the week.
 - Concerns were abated after Deutsche Bank reached a landmark 5.6bn settlement with the U.S. Justice department - lower than the \$11bn figure initially targeted.
- Primary supply weighs on tax exempt performance:
 - YTD weekly average supply has been in the \$8.5bn context:
 - Mkt participants expect this to climb steadily throughout the 4th quarter.
 - Weekly supply anticipated to be \$14bn+ this week.
 - Fund flows remain positive but pressure builds on the short end.
 - More than \$100bn has been pulled out of tax-exempt money-market funds this year ahead of SEC rules that take effect on Oct. 14th
 - As a result, SIFMA jumped to 84bps this past week.

Economic Data Reports & Interest Rate Forecasts⁽²⁾

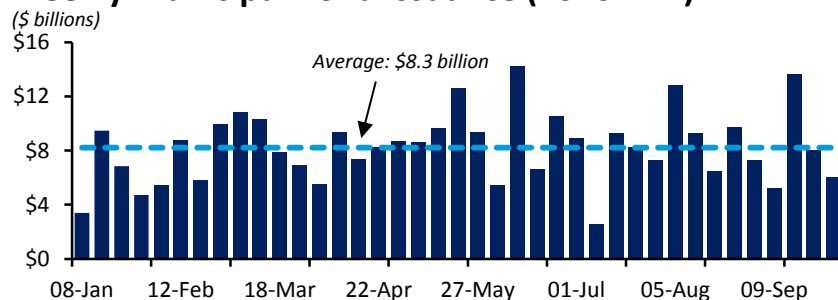
SELECTED ECONOMIC DATA REPORTS

Date	Economic Event	Date	Economic Event
10/3/16	ISM Manufacturing Index	10/5/16	Factory Orders
10/3/16	Construction Spending	10/5/16	ISM Non-Mfg Index
10/5/16	International Trade	10/6/16	Jobless Claims
10/5/16	EIA Petroleum Status Report	10/7/16	Employment Situation

BANK OF AMERICA MERRILL LYNCH FORECAST

Metric	9/23/16	2016Q3	2016Q4	2017Q1	2017Q2
Fed Fund Rate ⁽⁴⁾	0.50%	0.25%	0.62%	0.62%	0.87%
3-Month LIBOR	0.86%	0.85%	0.95%	1.00%	1.15%
2YR T-Note	0.76%	0.85%	0.95%	1.00%	1.20%
10YR T-Note	1.62%	1.35%	1.50%	1.75%	2.00%
30YR T-Bond	2.34%	2.00%	2.25%	2.45%	2.60%

Weekly Municipal Bond Issuance (2016 YTD)⁽³⁾



STREET MEDIANS FORECAST

Metric	9/23/16	2016Q3	2016Q4	2017Q1	2017Q2
Fed Fund Rate ⁽⁴⁾	0.50%	0.50%	0.70%	0.80%	0.95%
3-Month LIBOR	0.86%	0.73%	0.87%	0.98%	1.12%
2YR T-Note	0.76%	0.80%	0.90%	1.01%	1.12%
10YR T-Note	1.62%	1.63%	1.72%	1.85%	1.98%
30YR T-Bond	2.34%	2.23%	2.39%	2.53%	2.67%

(1) Provided by the long-term underwriting desk of BofAML; does not represent the opinion of BofAML Global Research.

(2) Source: Bloomberg and BofAML Global Research as of 9/23/16 and 9/30/16.

(3) Source: Thomson Reuters and IPREO calendar as of 9/29/16; excludes notes and private placements.

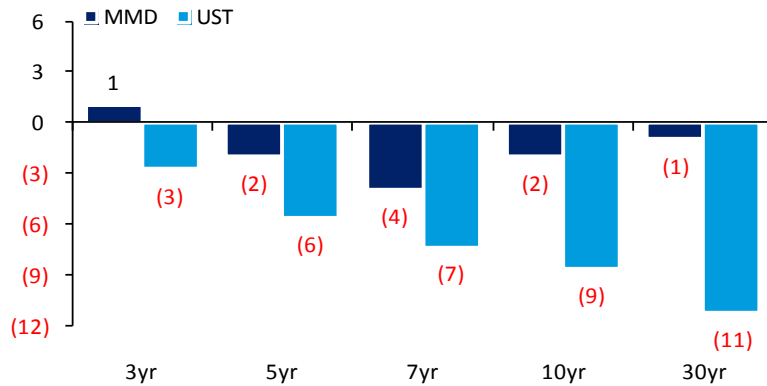
(4) Fed Fund Target Rate – BofAML reflects Effective Rate; Street Medians reflects Upper Bound.

Municipal Market Update

Market Movements

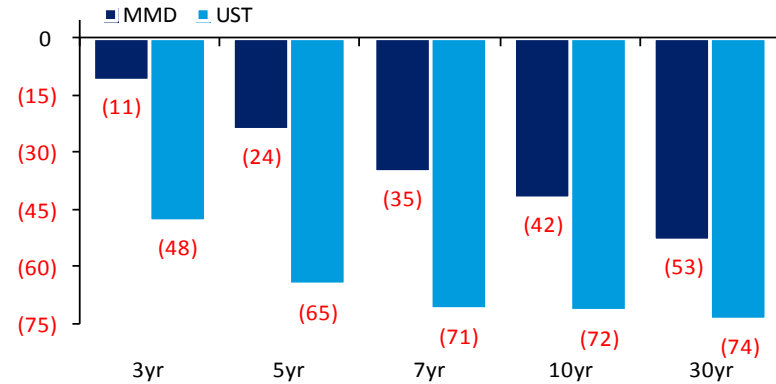
Change in MMD & UST (Week ending 9/30/16)

(basis points)

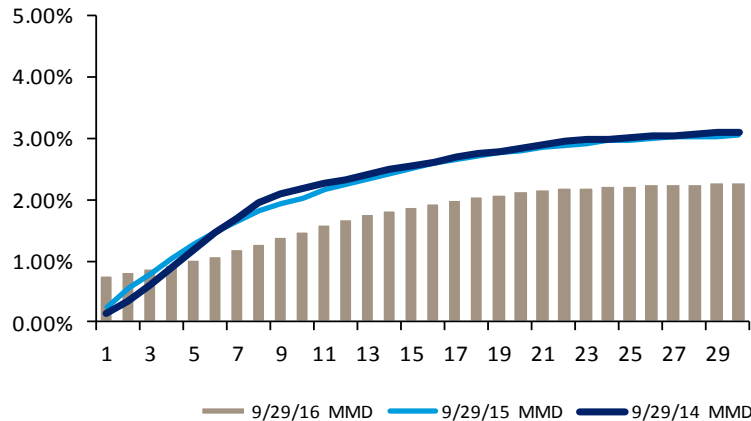


Change in MMD & UST (2016 YTD)

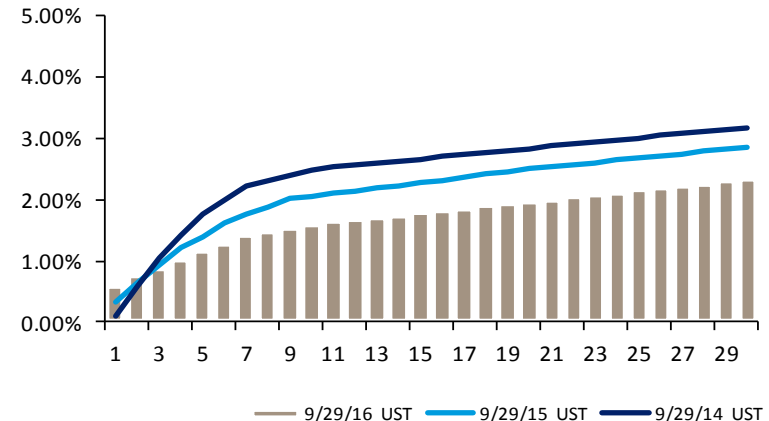
(basis points)



AAA MMD Yield Curve



UST Yield Curve

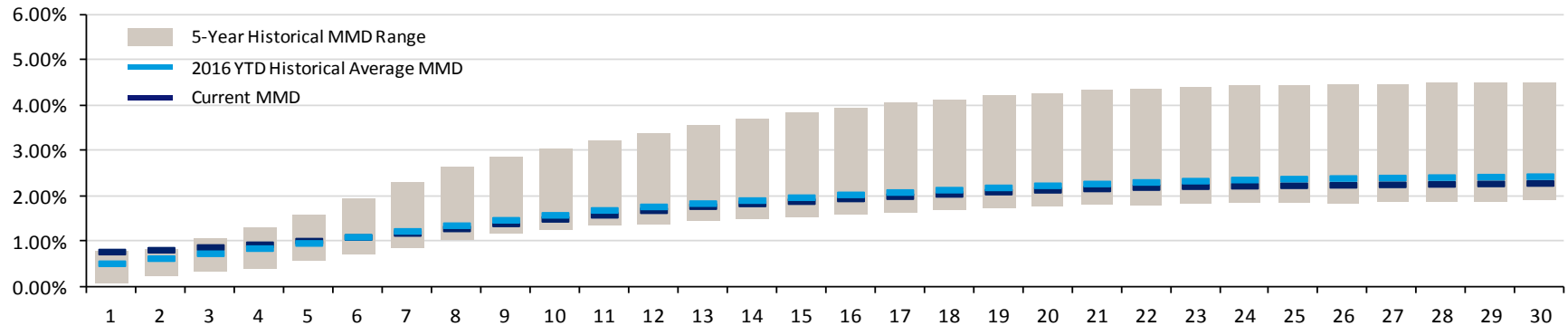


Source: Thomson Reuters as of 9/29/16.

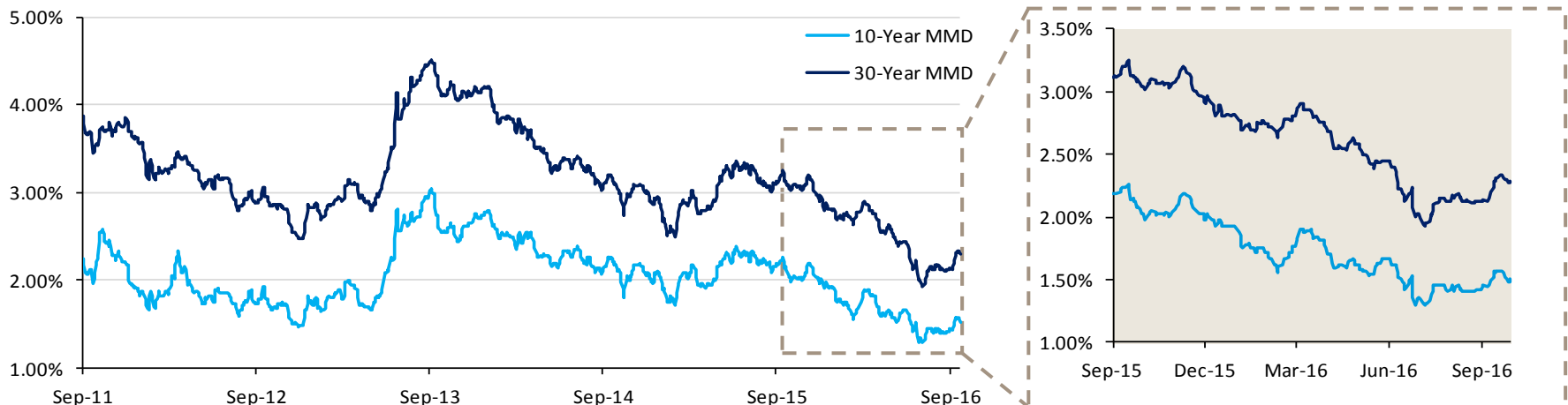
Municipal Market Update

Tax-Exempt Interest Rate Overview

MMD Yield Curve (Last Five Years)



10-Year and 30-Year MMD Rates (Last Five Years)



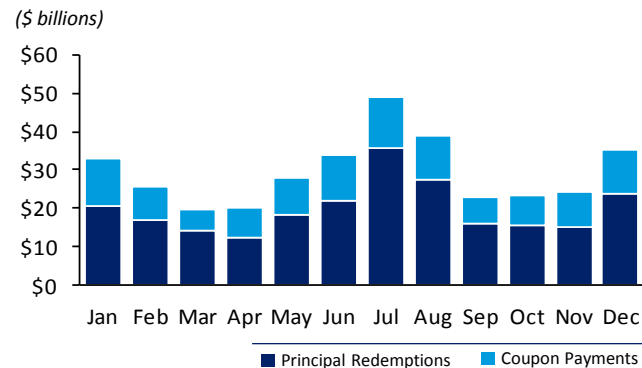
Source: Thomson Reuters as of 9/29/16.

Municipal Market Update

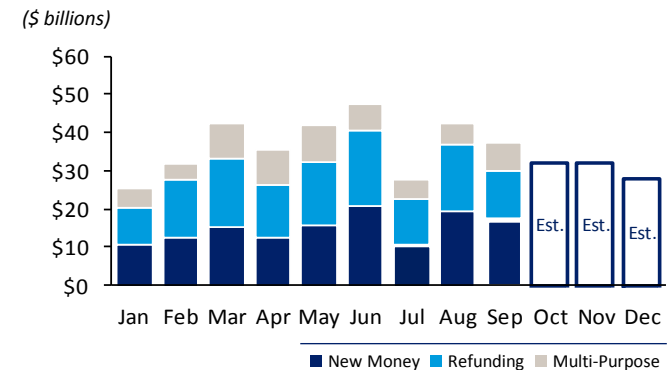
Supply and Demand

- Total municipal issuance in 2015 totaled nearly \$400 billion
- Muni issuers continue a steady pace of refundings and new money issuance, at a rate that BofAML believes will meet our target of \$440-450 billion before year-end

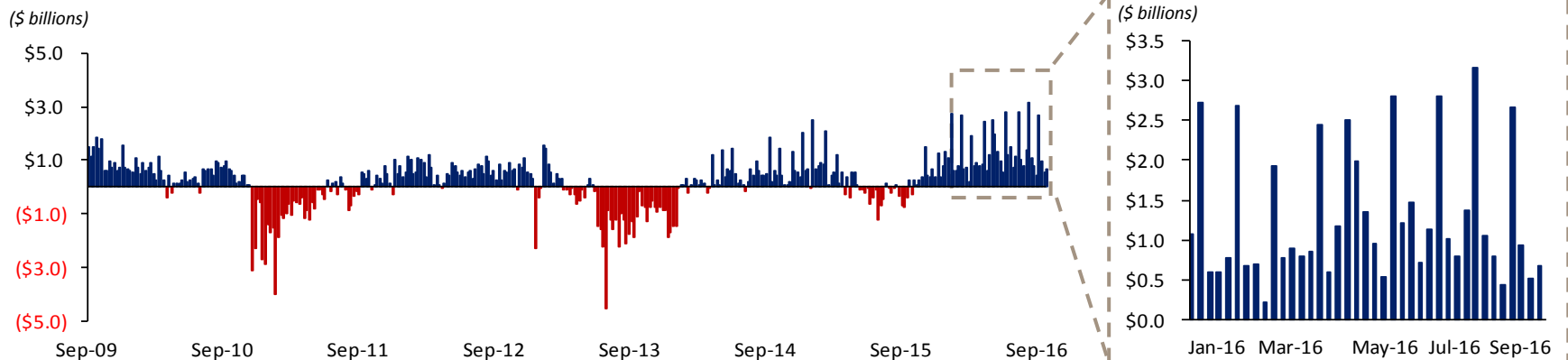
Estimated 2016 National Redemptions⁽¹⁾



Estimated 2016 Municipal Issuance⁽¹⁾



Municipal Bond Funds Have Experienced 52 Consecutive Weeks of Inflows ⁽²⁾



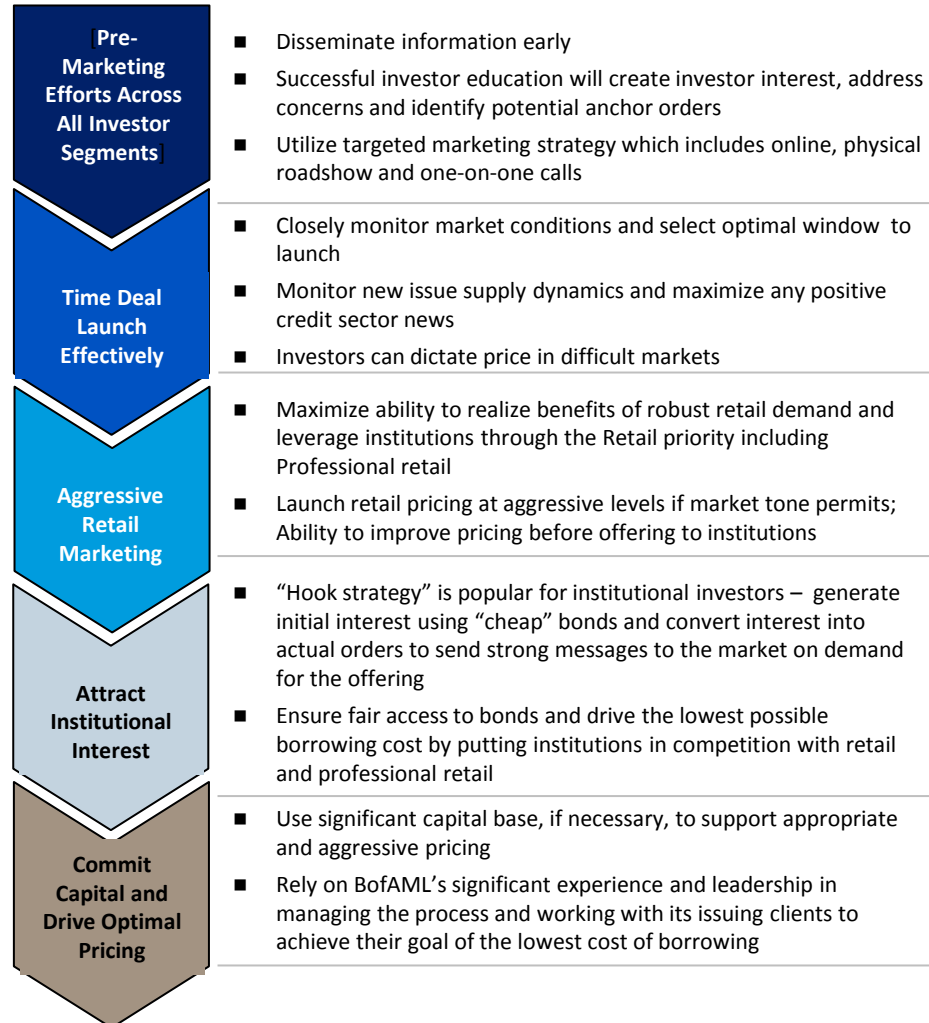
(1) BofAML Global Research as of 2/29/16; and 9/29/16; Thomson Reuters as of 9/29/16; actual YTD issuance excludes notes, includes private placements.

(2) Lipper U.S. Fund Flows as of 9/29/16; data includes weekly and monthly reporting funds.

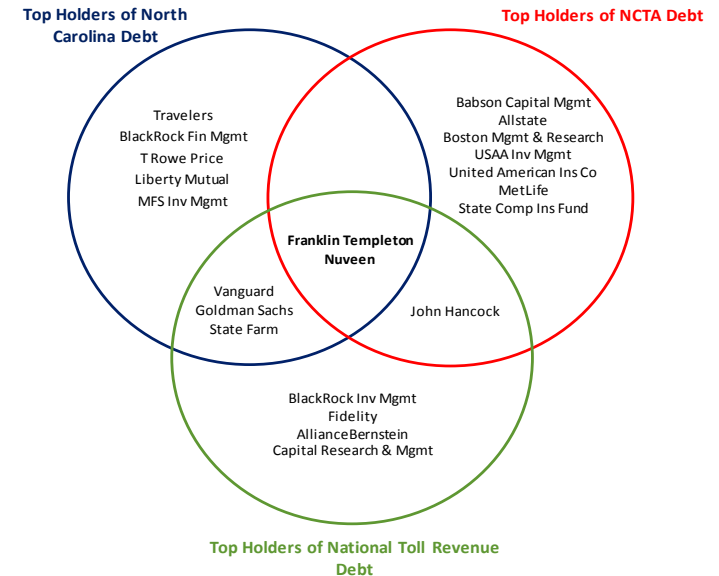
Marketing Strategy

Leverage Our Extensive Distribution Network

Distribution Strategy



Investor Analysis to Target Key Institutions



Top NCTA Triangle Expressway Revenue Bond Holders⁽¹⁾

Firm Name	CIBs	CABs ⁽²⁾	Total ⁽²⁾
Franklin	\$35,650	\$55,215	\$90,865
Nuveen	30,510	51,325	81,835
WAMCO (NY)	14,795	-	14,795
WAMCO (CA)	14,795	-	14,795
Invesco	11,860	-	11,860
USAA	6,930	-	6,930
Foresters Inv Mgmt Co	4,000	-	4,000
MacKay Shields LLC	3,000	-	3,000
Boston Management	2,088	22,500	24,588
Eaton Vance	1,633	16,000	17,633
Waddell	1,000	-	1,000
Mercury Casualty Co	1,000	-	1,000
Total	\$127,261	\$145,040	\$272,301

⁽¹⁾Holders data based reported holding. Source: Thomson Reuters eMAXX as of 9/28/16.

⁽²⁾ CAB amount is represented in maturity / future value.

Marketing Strategy

National and Local Network

Institutional Investors

- As the #1 municipal underwriter, we have high quality relationships with all major institutional investors
- Bond fund inflows have been heavily focused on credit
- Nurture your top institutional investors, but critical to add new investors



- Target most aggressive secondary market credit investors in all segments of curve

Institutional Network

28 Offices Nationwide

381 Financial Advisors

24 Municipal Sales Associates

394,000 Institutional Accounts

5,200 Municipal Accounts

Professional Retail ⁽¹⁾

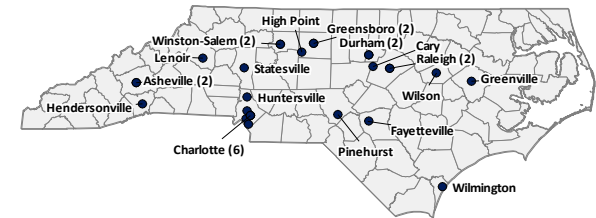
- Separately managed accounts (“SMAs”) have become significant buyers of municipals since 2008
- Large size of this asset base merits focus on individual accounts

Assets Under Management of Select SMAs

SMA	Assets (\$B)
JP Morgan	\$28
BlackRock	27
Sanford Bernstein	26
GSAM	24
Nuveen Investments	20
Breckenridge	18
Northern Trust	17
BoNY Mellon	16
UBS	15
Eaton Vance	11

- Same credit analysts, but different portfolio managers
- Actively covered by BofA Merrill Lynch’s institutional sales force

Traditional Retail



- Increasingly, High Net Worth retail investors moving out maturity and down credit curve
- Provides liquidity to institutions in secondary market

North Carolina Retail Network

24 Retail Offices

437 Financial Advisors

National Retail Network

1,081 Offices Nationwide

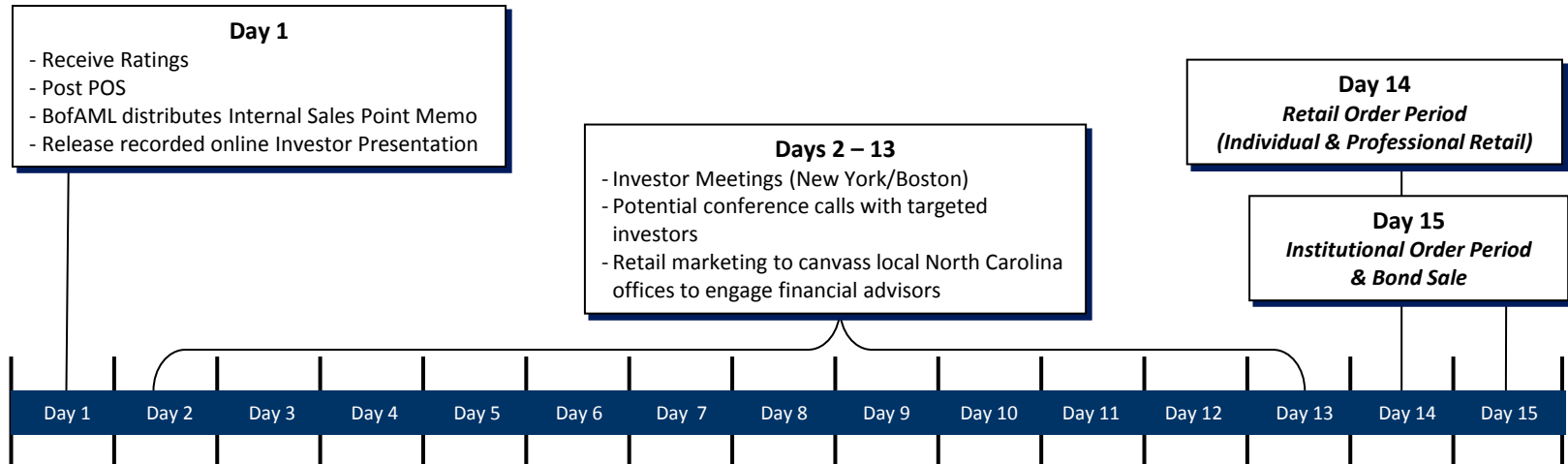
13,684 Financial Advisors

(1) Source: PROPRIETARY. Estimated by internal sources at BofA Merrill Lynch for Separately Managed Accounts (SMA).

Marketing Considerations

Marketing Schedule

Implement Marketing Plan & Pricing Schedule which Creates Maximum Flexibility



October						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Key:	
	Holidays

Schedule can be condensed to react to market conditions with period between posting and pricing being as short as 3-4 business days

Risk Disclosures

Fixed Rate Bonds⁽¹⁾

Material Risk Consideration	Description of Risk	Potential Consequences
Issuer Default Risk	Possibility that the Issuer defaults under the authorizing documents	<ul style="list-style-type: none"> -Range of available remedies may be brought against Issuer (e.g., forcing Issuer to raise taxes or revenues) -Credit ratings negatively impacted -Access to capital markets impaired -Possibility of receivership or bankruptcy for certain issuers
Redemption Risk	The ability to redeem the bonds prior to maturity may be limited	<ul style="list-style-type: none"> -Inability to refinance at lower interest rates
Refinancing Risk	Possibility that the bonds cannot be refinanced	<ul style="list-style-type: none"> -Inability to refinance at lower interest rates
Reinvestment Risk	Possibility that the Issuer may be unable to invest unspent proceeds at or near the interest rate on the bonds	<ul style="list-style-type: none"> -Negative arbitrage resulting in a higher cost of funds
Tax Compliance Risk	For tax-exempt bonds, possibility that failure to comply with tax-related covenants results in the bonds becoming taxable obligations	<ul style="list-style-type: none"> -Increase in debt service costs retroactively to date of issuance -Possible mandatory redemption of bonds affected -Risk of IRS audit -Difficulty in refinancing the bonds -Access to tax-exempt market impacted -Difficulty in issuing future tax-exempt debt

⁽¹⁾ You should consult with your financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent you deem appropriate concerning such risks.

NCTA – Investment Strategy Update

David Calvert

PFM





North Carolina Turnpike Authority



Bond Proceeds Investment Update

October 6, 2016



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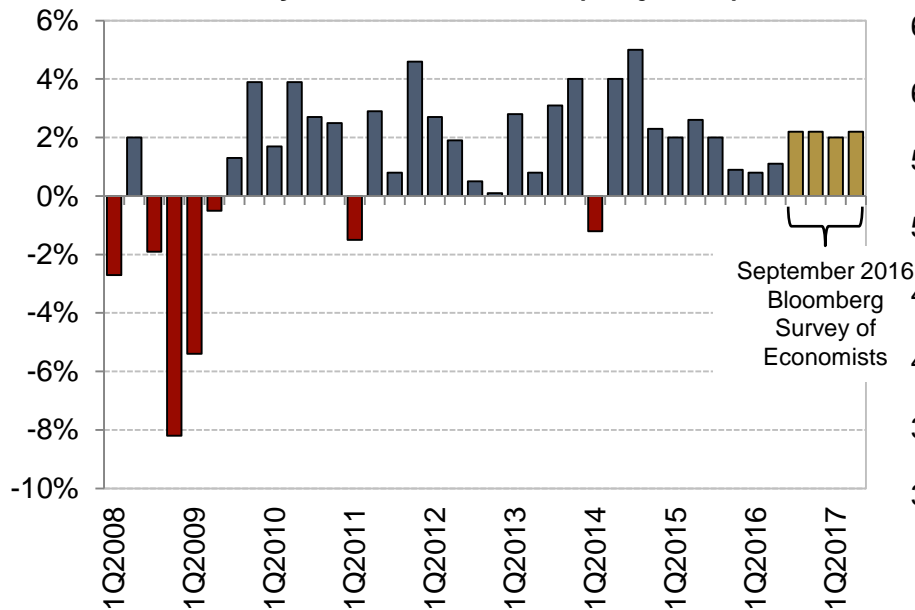
Presented By:
David Calvert, *Director*

Gross Domestic Product

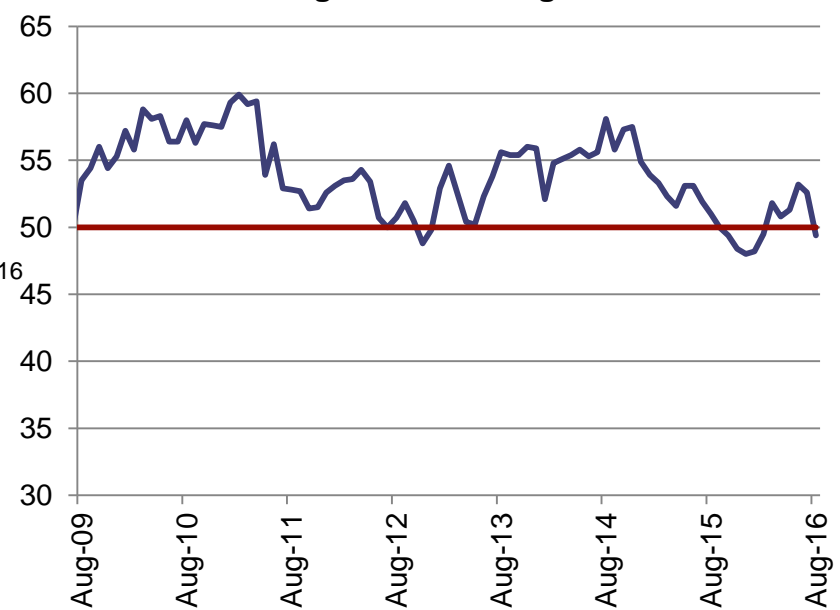


- During the 2nd quarter, U.S. Gross Domestic Product (GDP) grew at an annual rate of only 1.1%.
- The ISM manufacturing index fell below a reading of 50 for the first time since February 2016, indicating contraction in the manufacturing sector.

Gross Domestic Product
January 2008 – June 2017 (Projected)



ISM Manufacturing Index
August 2009 – August 2016

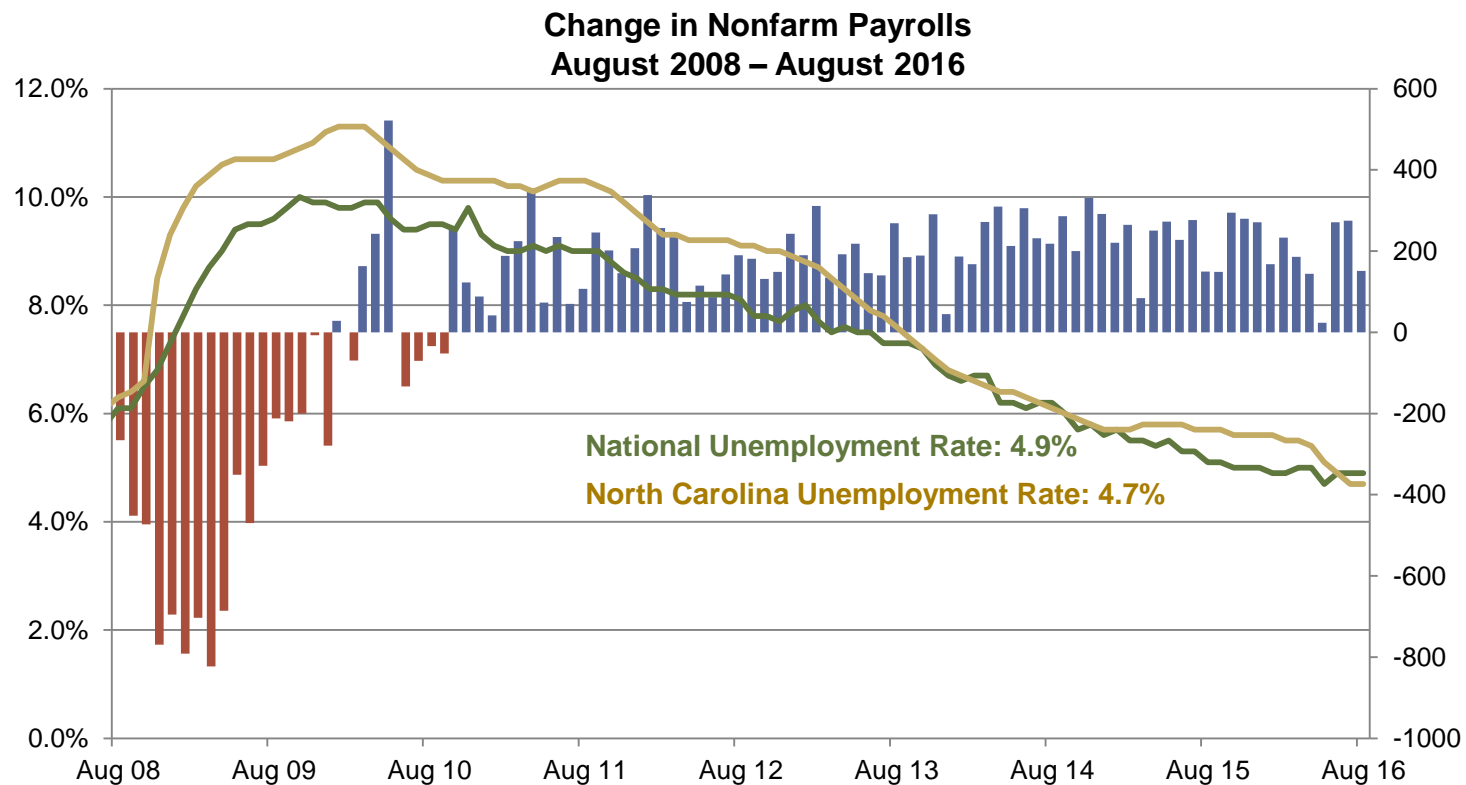


Source: Bloomberg

U.S. & North Carolina Labor Markets



- The U.S. economy has added more than 2.4 million jobs over the past 12 months.
- In August, 151,000 jobs were created. The national unemployment rate remained at 4.9%.



Source: Bureau of Labor Statistics

FOMC Statement Highlights



September

21

- Information received since the Federal Open Market Committee met in July indicates that the labor market has **continued to strengthen** and growth of economic activity has **picked up from the modest pace seen in the first half of this year**.
 - Although the unemployment rate is little changed in recent months, **job gains have been solid**, on average. Household spending has been growing strongly but business fixed investment has remained soft.
 - Inflation has **continued to run** below the Committee's 2 percent longer-run objective, partly reflecting earlier declines in energy prices and in prices of non-energy imports.
-
- **Near-term risks to the economic outlook appear roughly balanced.** The Committee continues to closely monitor inflation indicators and global economic and financial developments.
 - Against this backdrop, the **Committee decided to maintain the target range for the federal funds rate at 0.25 – 0.50%.** The stance of monetary policy remains accommodative...
 - In light of the current shortfall of inflation from 2 percent, the Committee will carefully monitor actual and expected progress toward its inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant **only gradual increases in the federal funds rate.**

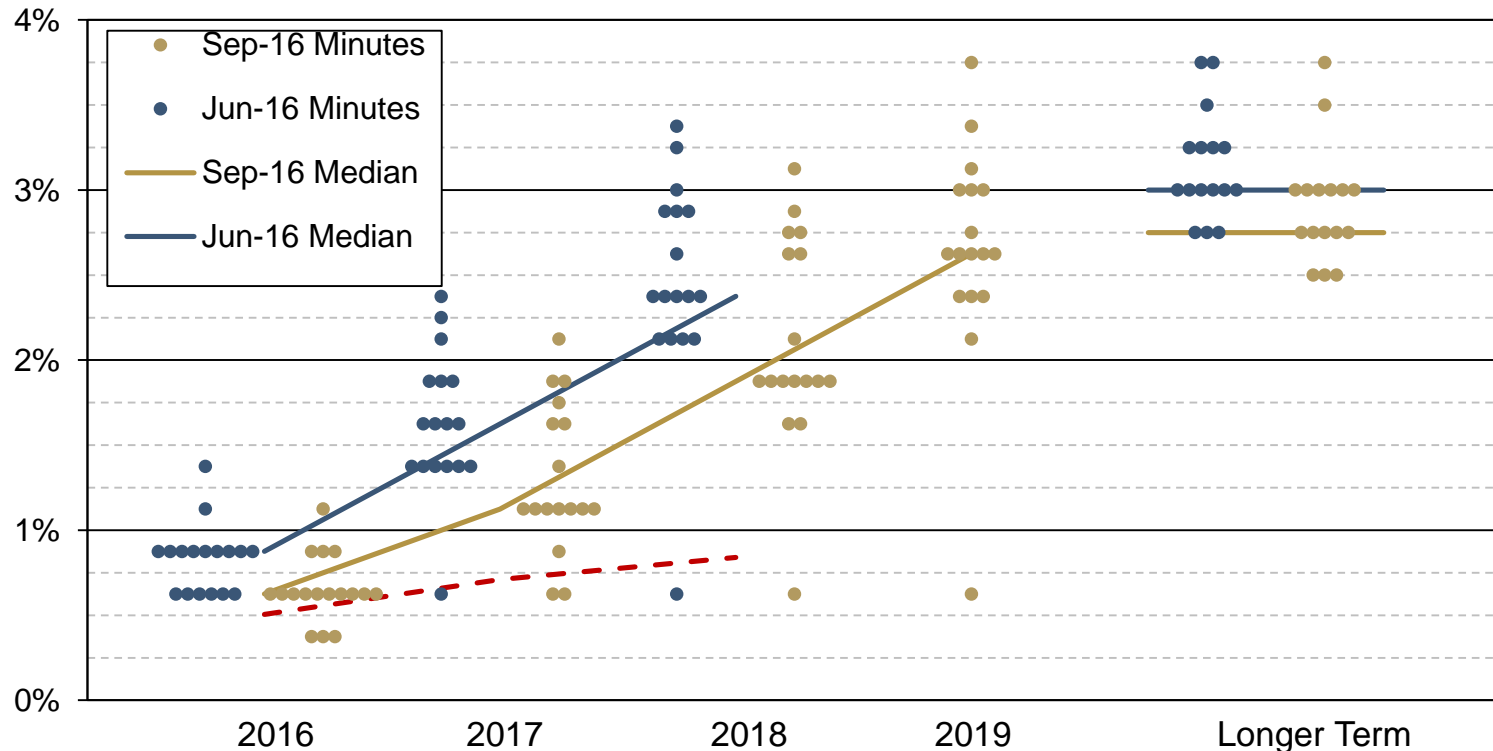
Source: Federal Reserve

Federal Funds Target Rate Projections



- At their September 2016 meeting, the FOMC decided to keep the Fed Funds target rate between $\frac{1}{4}\%$ to $\frac{1}{2}\%$.
- The markets and the Federal Reserve continue to differ in expectations.

Fed Dot Plot versus Previous Plots and Fed Funds Futures



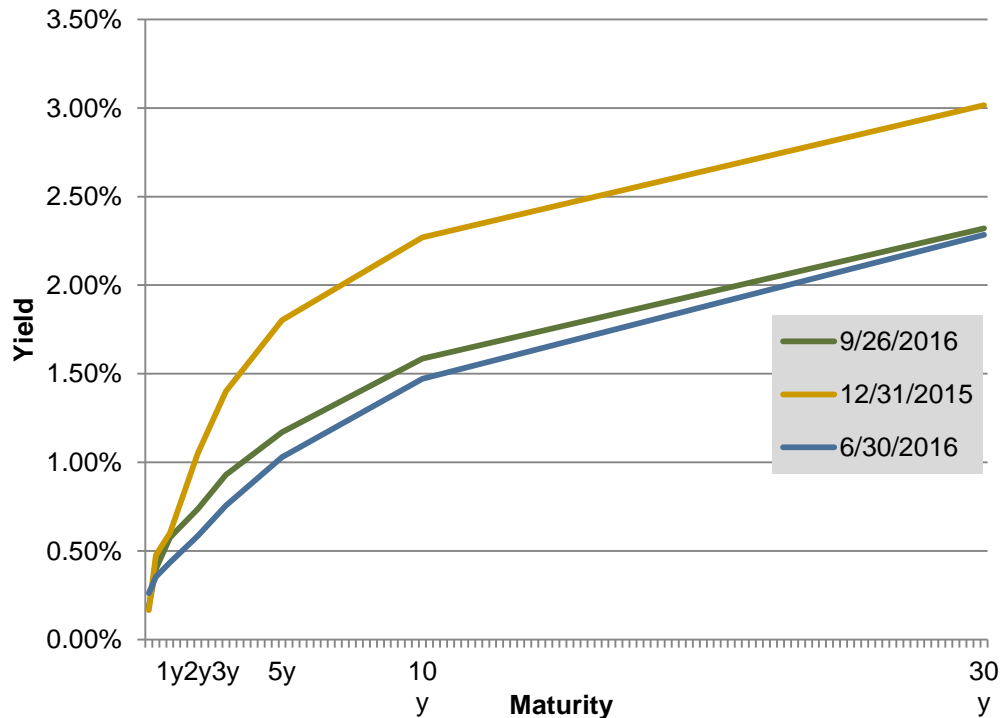
Source: FOMC; Fed Funds Futures as of 09/20/2016. Individual dots represent each of the 17 FOMC members' judgment of the midpoint of the appropriate target range for the federal funds rate. One participant did not submit longer-run projections in the June 2016 meeting.

U.S. Treasury Yields



U.S Treasury Yield Curve

December 31, 2015, June 30, 2016, and September 26, 2016



	12/31/15	6/30/16	9/26/16
3-Mo.	0.17%	0.26%	0.19%
6-Mo.	0.48%	0.35%	0.40%
1-Yr.	0.60%	0.44%	0.58%
2-Yr.	1.05%	0.58%	0.74%
3-Yr.	1.40%	0.76%	0.93%
5-Yr.	1.80%	1.03%	1.17%
10-Yr.	2.27%	1.47%	1.59%
30-Yr.	3.02%	2.29%	2.32%

Source: Bloomberg

Negative Global Yield Environment



- Sovereign debt with negative yields climbed to \$11.4 trillion as of August 2nd, according to Fitch Ratings. This represents approximately one third of all debt issued by the developed nations.
- Global growth concerns and aggressive monetary policy adopted by central banks around the world have driven yields lower this year. Investors' flight to quality following Brexit pushed rates even lower.

	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	30Y
Switzerland	-0.99%	-0.95%	-0.94%	-0.87%	-0.81%	-0.75%	-0.68%	-0.59%	-0.54%	-0.50%	-0.05%
Sweden	-0.73%	-0.65%	--	-0.54%	-0.36%	--	-0.25%	-0.12%	--	0.10%	--
Germany	-0.63%	-0.63%	-0.65%	-0.60%	-0.50%	-0.48%	-0.42%	-0.33%	-0.20%	-0.07%	0.45%
Netherlands	-0.63%	-0.61%	-0.62%	-0.58%	-0.43%	-0.42%	-0.33%	-0.21%	-0.07%	0.04%	0.53%
Finland	-0.59%	-0.60%	-0.58%	-0.50%	-0.46%	-0.37%	-0.29%	-0.18%	-0.08%	0.07%	0.53%
Belgium	-0.59%	-0.59%	-0.55%	-0.51%	-0.43%	-0.37%	-0.28%	-0.13%	0.03%	0.17%	1.05%
Austria	-0.59%	-0.57%	-0.54%	-0.51%	-0.45%	-0.39%	-0.36%	-0.31%	-0.02%	0.15%	0.80%
France	-0.58%	-0.59%	-0.55%	-0.50%	-0.39%	-0.35%	-0.24%	-0.13%	0.03%	0.18%	0.98%
Denmark	--	-0.57%	--	--	-0.35%	--	--	-0.20%	--	0.02%	0.50%
Japan	-0.22%	-0.20%	-0.20%	-0.18%	-0.18%	-0.18%	-0.18%	-0.15%	-0.11%	-0.07%	0.42%
Spain	-0.24%	-0.18%	-0.09%	0.00%	0.13%	0.21%	0.41%	0.72%	0.86%	1.01%	2.10%
Italy	-0.23%	-0.09%	-0.02%	0.05%	0.25%	0.42%	0.59%	0.79%	0.98%	1.14%	2.19%
Portugal	-0.01%	0.51%	0.97%	1.60%	1.88%	--	2.38%	2.80%	2.86%	3.03%	3.90%
UK	0.14%	0.14%	0.13%	0.18%	0.21%	0.29%	0.36%	0.45%	0.54%	0.64%	1.27%
Canada	0.57%	0.57%	0.58%	0.60%	0.66%	0.71%	0.77%	0.85%	0.93%	1.02%	1.63%
US	0.59%	0.81%	0.92%	--	1.20%	--	1.46%	--	--	1.58%	2.23%
Australia	1.51%	1.44%	1.40%	1.47%	1.51%	1.62%	1.67%	1.74%	1.79%	1.82%	--

Source: Bloomberg as of 8/31/16, Fitch Ratings as of 8/10/16



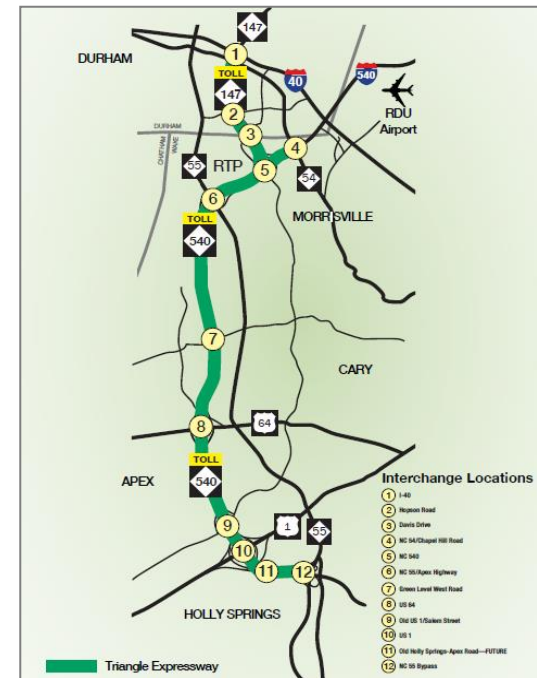
Money Market Reform



- Changes to SEC Rule 2a-7
- Enhanced disclosure
- Floating net asset value (“NAV”)
- Liquidity Fees
 - Default 1% fee when fund liquidity falls
- Redemption Gates
 - Fund board may suspend redemptions
 - Limited to 10 days in 90 day period

	Prime Fund Government securities, commercial paper, certificates of deposit, corporate notes, and other debt investments	Government Fund 99.5% of total assets in cash, government securities or repos
Retail Fund Limited to “natural persons”	<ul style="list-style-type: none">• Constant NAV• Gates• Liquidity Fees	<ul style="list-style-type: none">• Constant NAV• Optional Gates• Optional Liquidity Fees
Institutional Fund	<ul style="list-style-type: none">• Variable NAV• Gates• Liquidity Fees	<ul style="list-style-type: none">• Constant NAV• Optional Gates• Optional Liquidity Fees

**Effective October 14, 2016*



Triangle Expressway

Triangle Expressway - Overview of Invested Funds

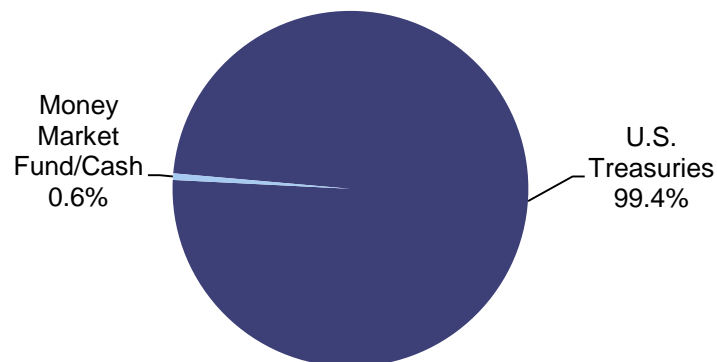


NCTA Account	STIF Account	PFM Funds Liquidity Account	PFM Managed Portfolio	Total
Revenue Bonds - Debt Service Reserve		\$ 167,886.62	\$ 28,098,024.97	\$ 28,265,911.59
BABs - Debt Service Reserve		\$ 136,166.20	\$ 7,847,405.60	\$ 7,983,571.80
A.P.A. Triangle 2009		\$ 28,259,158.14		\$ 28,259,158.14
S.A. Revenue Fund		\$ 480.55		\$ 480.55
General Reserve Triangle	\$ 50,383,649.41	\$ 37,868,216.18		\$ 88,251,865.59
2009 Revenue Triangle		\$ 668.50		\$ 668.50
2009 Senior Interest		\$ 12,483.82		\$ 12,483.82
2009 S.A. Interest		\$ 8,599,469.48		\$ 8,599,469.48
NCTA TIFIA DSR Triangle 2009		\$ 2,043,884.45		\$ 2,043,884.45
TIFIA Debt Service Account		\$ 61,383.66		\$ 61,383.66
Operations & Maintenance Expense Fund		\$ 1,252,572.50		\$ 1,252,572.50
Renewal & Replacement Fund		\$ 22,305.31		\$ 22,305.31
Operating Revenue Fund		\$ 3,100,602.37		\$ 3,100,602.37
Total	\$ 50,383,649.41	\$ 81,525,277.78	\$ 35,945,430.57	\$ 167,854,357.76

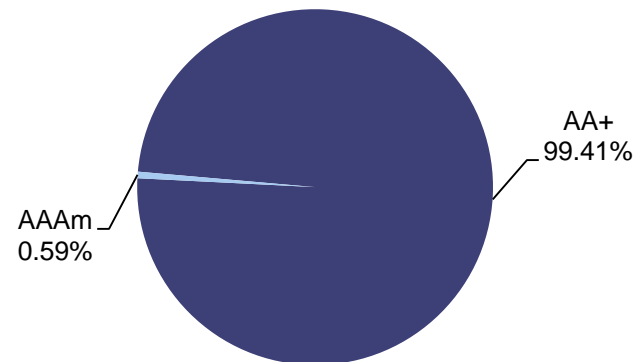
Senior Parity DSR Triangle 2009 (as of June 30, 2016)



Asset Allocation



Credit Quality

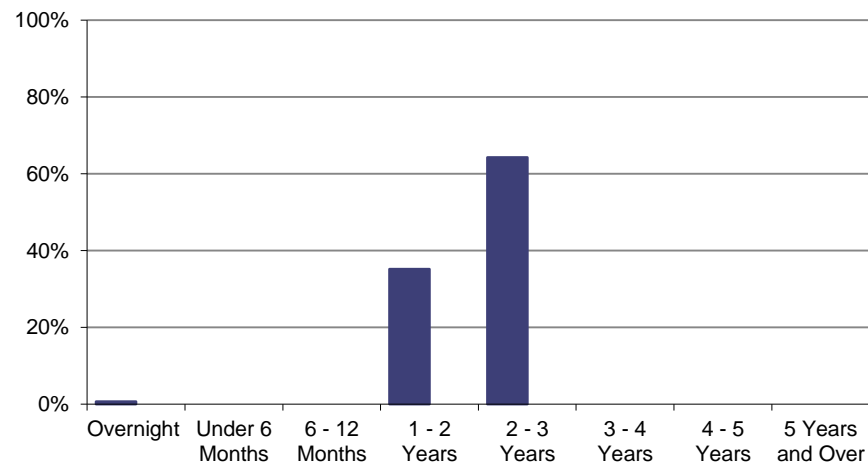


Portfolio Summary

Security Type	Market Value	% of Portfolio	Average Yield
U.S. Treasuries	\$28,098,024.97	99.4%	1.09%
Federal Agencies	\$0.00	0.0%	0.00%
Commercial Paper	\$0.00	0.0%	0.00%
North Carolina STIF	\$0.00	0.0%	0.00%
Money Market Account	\$167,886.62	0.6%	0.47%
Totals	\$28,265,911.59	100.0%	

	June 30, 2016
Duration	1.85
Yield at Cost	1.08%

Maturity Distribution



Senior Parity

Debt Service Reserve / Recent Trading Activity

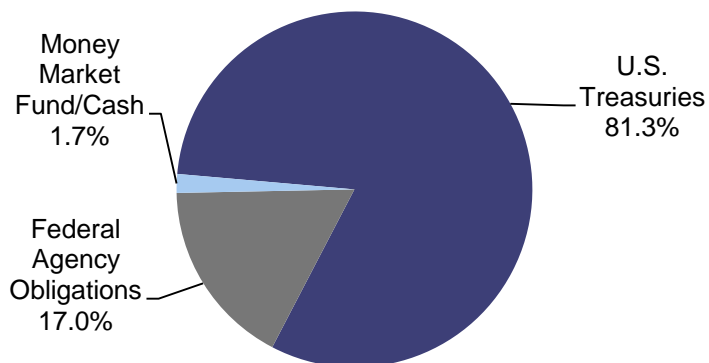


	Settlement Date	Security	Maturity Date	Par Amount	Yield	Difference	Additional Expected Income
<i>Extension Trade</i>							
Sell	11/10/2015	FHLB Global Notes	6/24/2016	\$ 2,600,000	0.436%		
Buy	11/10/2015	U.S. Treasury Note	12/31/2018	\$ 2,600,000	1.240%	0.804%	\$ 13,181.13
<i>Extension Trade</i>							
Sell	11/10/2015	FHLB Discount Notes	7/1/2016	\$ 1,000,000	0.488%		
Buy	11/10/2015	U.S. Treasury Note	12/31/2018	\$ 1,000,000	1.240%	0.752%	\$ 4,797.36
<i>Extension Trade</i>							
Sell	11/10/2015	FHLB Discount Notes	7/1/2016	\$ 465,000	0.488%		
Buy	11/10/2015	U.S. Treasury Note	6/30/2018	\$ 465,000	1.084%	0.596%	\$ 1,768.61
<i>Extension Trade</i>							
Sell	11/10/2015	FHLMC Global Notes	6/29/2017	\$ 6,290,000	0.792%		
Buy	11/10/2015	U.S. Treasury Note	6/30/2018	\$ 6,290,000	1.084%	0.292%	\$ 30,191.17
<i>Extension Trade</i>							
Sell	11/10/2015	U.S. Treasury Note	12/31/2016	\$ 7,400,000	0.585%		
Buy	11/10/2015	U.S. Treasury Note	6/30/2018	\$ 7,400,000	1.084%	0.499%	\$ 42,908.22
<i>Extension Trade</i>							
Sell	1/8/2016	U.S. Treasury Note	9/30/2017	\$ 2,500,000	1.005%		
Buy	1/8/2016	U.S. Treasury Note	12/31/2017	\$ 2,500,000	1.056%	0.051%	\$ 2,289.97
						Total Economic Benefit	\$ 95,136.46

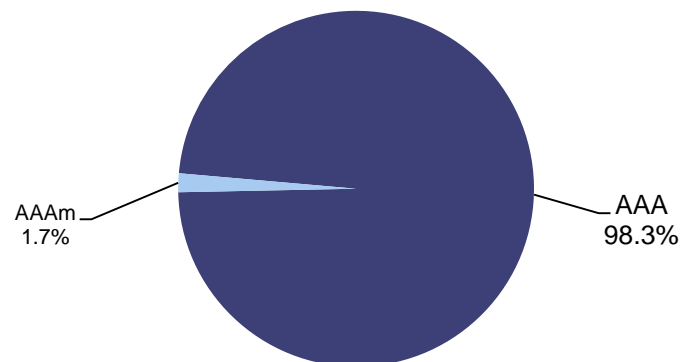
BABs Debt Service Reserve (as of June 30, 2016)



Asset Allocation



Credit Quality

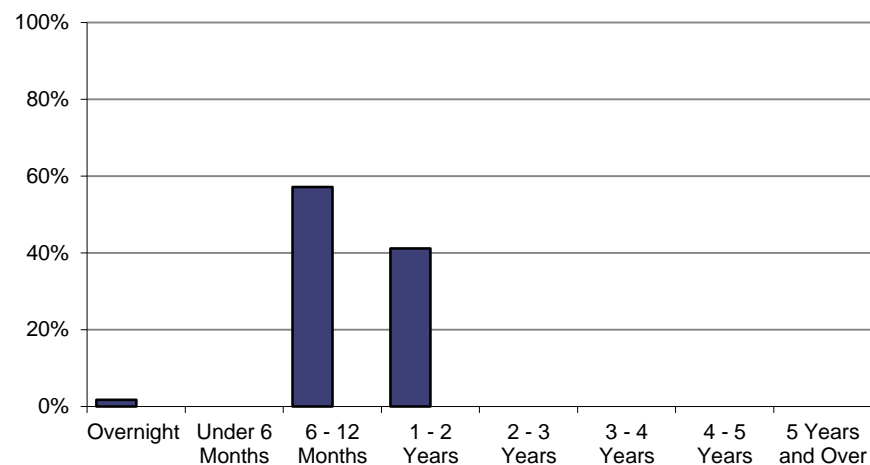


Portfolio Summary

Security Type	Market Value	% of Portfolio	Average Yield
U.S. Treasuries	\$6,486,818.18	81.3%	0.83%
Federal Agencies	\$1,360,587.42	17.0%	0.97%
Commercial Paper	\$0.00	0.0%	0.00%
North Carolina STIF	\$0.00	0.0%	0.00%
Money Market Account	\$136,166.20	1.7%	0.47%
Totals	\$7,983,571.80	100.0%	

	June 30, 2016
Duration	0.98
Yield at Cost	0.85%

Maturity Distribution

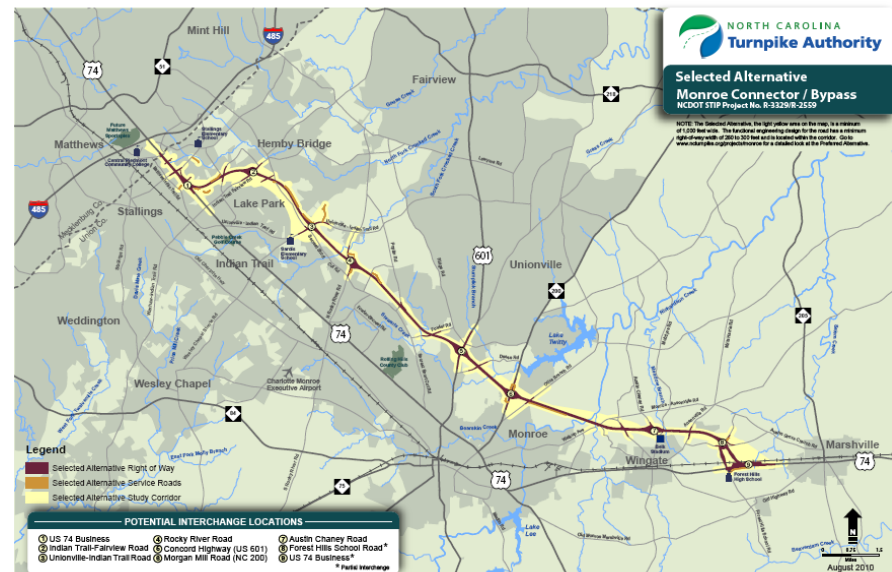


Triangle Expressway BABs

Debt Service Reserve / Recent Trading Activity



	Settlement Date	Security	Maturity Date	Par Amount	Yield	Difference	Additional Expected Income
<i>Extension Trade</i>							
Sell	1/8/2016	U.S. Treasury Note	6/30/2016	\$ 2,500,000	0.517%		
Buy	1/8/2016	U.S. Treasury Note	12/31/2017	\$ 2,500,000	1.056%	0.539%	\$ 6,496.90
<i>Extension Trade</i>							
Sell	1/8/2016	U.S. Treasury Note	9/30/2017	\$ 750,000	1.005%		
Buy	1/8/2016	U.S. Treasury Note	12/31/2017	\$ 750,000	1.056%	0.051%	\$ 686.99
Total Economic Benefit						\$	7,183.89

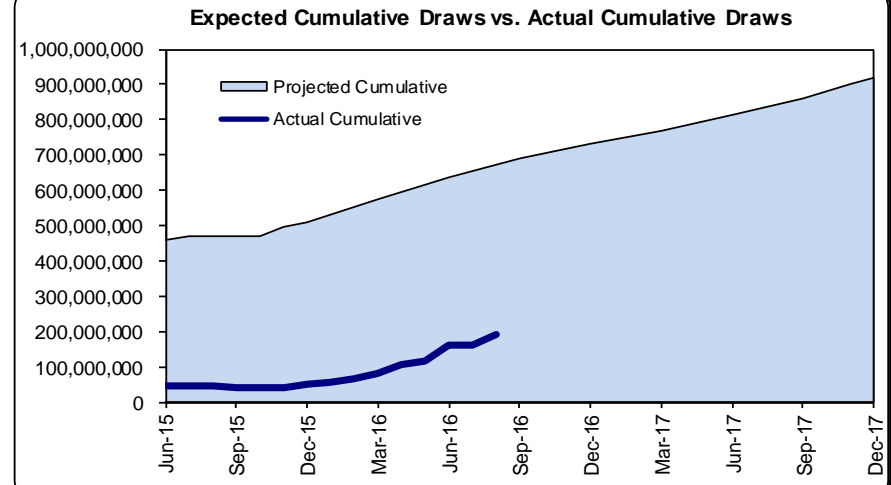
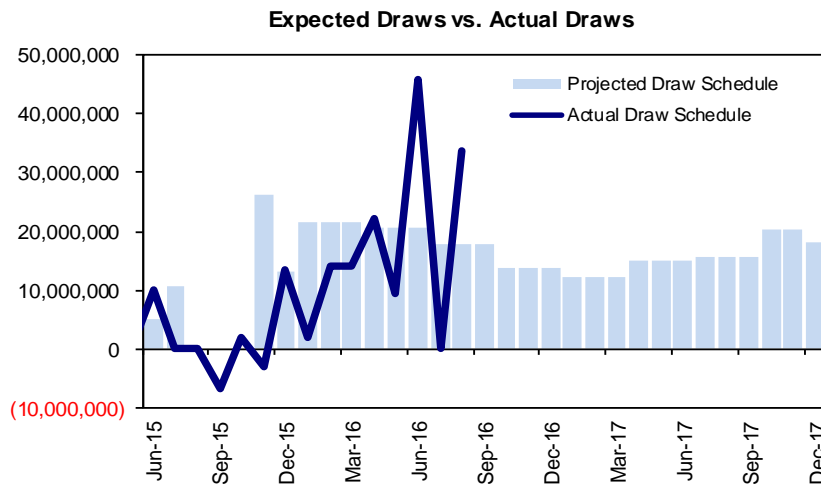


Monroe Connector / Bypass

Project Fund Disbursements



- Over the last 6 months, \$125.7 million have been spent from the Monroe Project Funds.



* Disbursements from State Appropriation Project Fund 2010, State Appropriation Project Fund 2011, and 2011 Super Senior Bonds.

Monroe Project - Overview of Invested Funds



- A majority of the Project Funds are invested in STIF because of the competitive yield offered.
- Day-to-day disbursements are paid from the Liquidity Account.

NCTA Account	STIF Account	PFM Funds Liquidity Account	PFM Managed Portfolio	Total
Monroe 2010 - Project Fund	\$ 192,659,007.53	\$ 2,710,547.46	\$ 8,531,999.03	\$ 203,901,554.02
Monroe 2010 - Principal Account		\$ 0.06		\$ 0.06
Monroe 2010 - Capitalized Interest		\$ 5,481.55		\$ 5,481.55
Monroe 2010 - Debt Service Reserve	\$ 4,366,882.95			\$ 4,366,882.95
Monroe 2010 - Revenue Fund	\$ 24,661,270.24	\$ 31.97		\$ 24,661,302.21
Monroe 2011 - Super Senior Bonds		\$ 9,884,619.74		\$ 9,884,619.74
Monroe 2011 - Appropriations Bonds	\$ 53,098,908.58	\$ 22,514,801.43	\$ 50,375,436.76	\$ 125,989,146.77
Monroe 2011 - General Reserve		\$ 84,088.11		\$ 84,088.11
Monroe 2011 - Revenue		\$ 1,563,361.06		\$ 1,563,361.06
Monroe 2011 - Interest		\$ 1,015,405.41		\$ 1,015,405.41
Monroe 2011 - Principal		\$ 23.10		\$ 23.10
Total	\$ 274,786,069.30	\$ 37,778,359.89	\$ 58,907,435.79	\$ 371,471,864.98

Monroe Project Funds



PFM Managed Portfolios As of June 30, 2016

Purchase Date	Security	Maturity Date	Par Amount	Yield
Monroe 2010 - Project Fund				
01/15/14	U.S. Treasury Notes	12/31/16	\$3,280,000	0.74%
06/16/14	FHLMC Global Notes	07/28/17	\$5,200,000	1.01%
			\$8,480,000	0.91%
Monroe 2011 Appropriations Bonds				
12/19/12	FNMA Global Notes	01/30/17	\$9,750,000	0.69%
05/14/13	FNMA Global Notes	04/27/17	\$16,500,000	0.70%
11/16/15	FHLMC Global Notes	11/17/17	\$8,850,000	0.95%
02/23/15	U.S. Treasury Notes	12/31/17	\$14,430,000	1.03%
			\$49,530,000	0.84%

Monroe – 2016 Bond Issuance



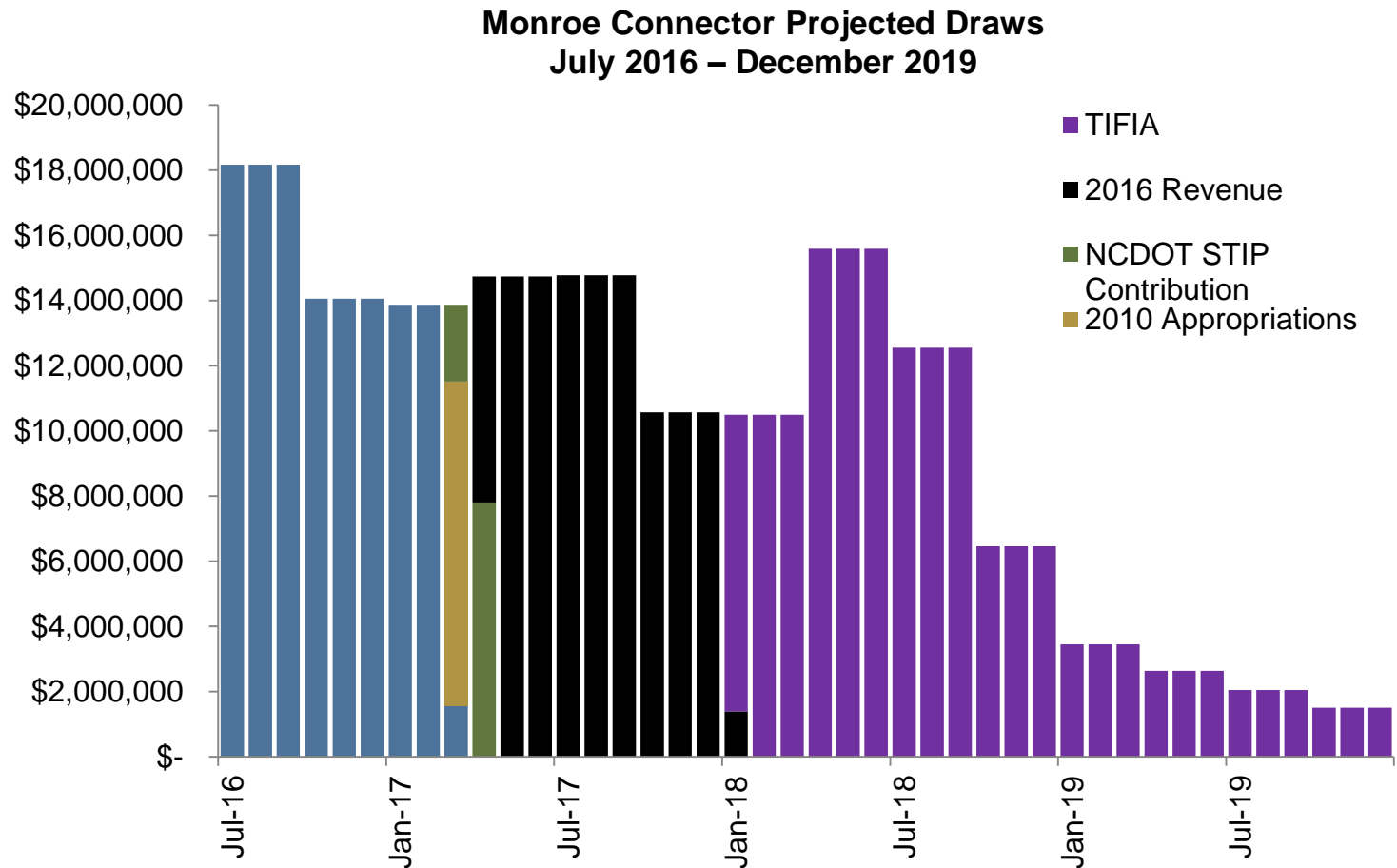
- As of September 30, 2016, the Monroe Project had anticipated remaining expenditures of \$364 million.
- For fiscal year 2017, \$182.5 million is expected to be spent. This amount does not include reimbursing NCDOT for funds spent from the 2011 GARVEE Bond Proceeds. The GARVEE reimbursement is estimated to be \$193 million.
- The Plan of Finance anticipates spending
 - All remaining Appropriation Bond Proceeds (\$338 million available as of June 30th, \$274 million available as of September 30th)
 - \$10.2 million of NCDOT STIP Contributions*
 - 2016 Toll Revenue Bonds (\$113.9 million for construction)
 - TIFIA Loan (\$166.5 million for construction)
- The current investment strategy of diversifying funds in STIF and a laddered portfolio of selective Federal Agencies allows NCTA to maintain flexibility to meet construction expenditures and a competitive rate of return on available funds.
- The timing of the reimbursement of the 2011 GARVEE Bond Proceeds could have a significant impact on the investment strategy.

** The latest plan of finance lowered STIP contributions from \$77 million to \$22 million, only \$10.2 million is available for construction.*

Monroe - Project Fund Disbursements



- This assumes the GARVEE reimbursement is funded from the 2010 Appropriation Bonds.



Disclaimer



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Past performance does not necessarily reflect and is not a guaranty of future results. The information contained in this presentation is not an offer to purchase or sell any securities.